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ABSTRACT

This paper is an introduction to a series of reports intended to assist postsecondary institutions in developing and maintaining high quality special services for students who are deaf and those who are hard of hearing. A brief review of the history of deaf students in the United States from 1813 to the present precedes data on present college enrollments of deaf and hard of hearing students and data on the number and kinds of colleges reporting the enrollment of deaf and hard of hearing students. The following section considers sources of variability within the population of hearing impaired students including degree of hearing loss, age at onset, communication skills and preferences, and self-identification with "deaf" culture. Discussion of the various prior educational experiences considers types of schools attended and communication methods used in various school settings. Special factors in the choice of college by deaf and hard of hearing students are noted such as access and accommodation, prior learning experiences, and sociocultural identifications. Other sections discuss special services offered by colleges, a comparison of students' use patterns between the deaf and heard of hearing communities, quality of services, three service delivery models, and the relevance and applicability of the Americans with Disabilities Act and other laws. (Contains 15 references and a list of regional centers providing outreach and technical assistance services to postsecondary institutions serving deaf and heard of hearing students.) (DB)

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National Task Force on Quality of Services
in the Postsecondary Education of
Deaf and Hard of Hearing Students

INTRODUCTION

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National Task Force on Quality of Services in the
Postsecondary Education of Deaf and Hard of Hearing Students

INTRODUCTION

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Editor's note

This is one in a series of reports intended to assist postsecondary institutions in developing and maintaining special services of quality as needed by their deaf and hard of hearing students. Each report has been prepared with postsecondary administrators, faculty, and staff uppermost in mind, and particularly those most likely to have a role in providing services to these students. It is anticipated that these reports will be useful also to deaf and hard of hearing students in gaining more information about services for which they may be eligible.

A challenge in authoring and editing each of these reports is to avoid giving the impression that all the information they contain pertains equally to all deaf and hard of hearing students at the postsecondary level. Of course this is not so. These students are individuals first, and their needs and wishes for special services and other accommodations will vary, as will characteristics of the particular colleges and universities they as individuals choose to attend.

Also, it is a challenge to write about needs and services for both deaf and hard of hearing students together. While they do share a hearing loss, the magnitude of their hearing loss ranges collectively from mild to profound. But while the special needs of deaf students may be more apparent than those of hard of hearing students, the special needs of hard of hearing students are no less real.

Fifteen reports are scheduled for distribution in 1997 and 1998, each with a different focus and each authored by a working committee of experts on a particular subject. All are members of a **National Task Force on Quality of Services for Postsecondary Deaf and Hard of Hearing Students**. This task force was formed in 1994 and numbers 100 members associated with 32 two and four-year colleges in 28 states and provinces in the United States and Canada.

Readers are free to cite information and views from each of the reports and to duplicate and share copies. In return, they are asked to cite the names of its authors and make bibliographic reference to the report.

– Ross Stuckless

INTRODUCTION

Ross Stuckless, Don Ashmore, John Schroedel, and Jo Anne Simon, Esq.[1]

A BRIEF LOOK BACK

The history of the education of deaf students in the United States is rich and colorful. Unfortunately, the education of students who are hard of hearing has received relatively little attention.

Deaf students. The first school for deaf students was founded in 1813. Within a few years, publicly supported residential schools had become available to deaf children in virtually every eastern state, and by the late 19th century, one or more such schools were located in almost every state. Day schools and classes were established in metropolitan areas, giving many deaf students the option of commuting.

While only a handful of deaf students had the resources and were encouraged to go on to college, most residential schools included a strong vocational education component. These developments were paralleled by the formation of several national organizations of educators of the deaf, numerous teacher-training programs, and a growing literature about deaf people and their education.

In 1864, Gallaudet College was established in Washington, D.C. as a federally supported postsecondary institution mandated to serve deaf students throughout the nation. While for many years its enrollment remained small in proportion to the numbers of deaf high school graduates nationally, it had great symbolic significance for all deaf people and led to a well-informed and effective deaf leadership throughout the country. Gallaudet has since become a university and has a full-time enrollment of more than 1,400 deaf students (Rawlings, Karchmer, DeCaro, & Allen, 1995).

In the 1960s the federal government began to take an active role in the special education of all handicapped children. This led to a major increase in university-based research focusing on deaf children and adults, and support for more than 50 colleges and universities to train teachers and leadership personnel to serve deaf children. This also led to a strengthening of vocational rehabilitation services at the state and local levels, including provisions for subsidizing deaf students to attend college in order to increase their employment opportunities.

In 1965, Congress passed legislation leading to a second national postsecondary program for deaf students, the National Technical Institute for the Deaf (NTID), on the campus of Rochester Institute of Technology (RIT). NTID has a full-time enrollment of approximately 1,100 deaf students (Rawlings et al., 1995) of whom almost one-half are enrolled in regular RIT baccalaureate-level courses with hearing classmates and support services as needed. Several services used with postsecondary deaf students in mixed hearing/deaf classes elsewhere were first introduced at NTID.

In the same period, the federal government funded several regional postsecondary programs, two of which remain active today–programs at St. Paul Technical College in Minnesota and California State University at Northridge (CSUN) with a full-time enrollment of more than 200 deaf students. A more recently funded program is actually a consortium of 10 affiliated colleges in the Southeast region offering special services to deaf students. This consortium, named the Postsecondary Education Consortium (PEC), is administered by the University of Tennessee.[2]

Deaf students have also benefited greatly from the presence of more than 2,000 two-year community colleges throughout the country, affording young deaf adults the opportunity to enroll in career-oriented curricula near their homes. Many are also able to take advantage of liberal admissions policies. As we shall see, large numbers of deaf students are now being served by these colleges.

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[1] In the order listed above, the authors are associated with National Technical Institute for the Deaf (Rochester, New York), University of Tennessee (Knoxville, Tennessee), University of Arkansas (Little Rock, Arkansas), and Brooklyn, New York.

[2] In 1996, the role of the federally funded regional programs at St. Paul Technical College, California State University at Northridge, and the University of Tennessee was changed. These regional programs no longer receive federal funds for direct student support services and/or program expansion activities. These regional centers were joined by a fourth center at the National Technical Institute for the Deaf to serve as regional centers for outreach and technical assistance for the midwestern, western, southern and northeastern regions of the United States. More information, including addresses, is provided in the appendix of this report.

Hard of hearing students. Historically, society has given much less attention to the education of hard of hearing students than it has to the education of students who are deaf. This is due in large part to the perception that to be hard of hearing as a child is less educationally challenging than to be deaf, and it follows that fewer adaptations (and special resources) need be provided. As a generalization, this may be so. However, this characterization ignores factors such as degree and type of hearing loss, age at onset, use and quality of amplification, and personal/social concomitants.[3] Sometimes too, the condition is entirely overlooked or misdiagnosed as some other condition simply because the behavioral correlates of partial hearing were not understood, especially in children.

Many severely hard of hearing students have blended educationally with deaf students, sharing the resources essentially designed for deaf students and often joining the culture established by people who are deaf. With perseverance and appropriate amplification, others have had successful college experiences with little or no special accommodation. Still others have struggled on the educational and social fringes of those who are hearing and those who are deaf, sometimes referring to themselves as "neither fish nor fowl".

Unlike deaf students, those who are hard of hearing have never had much of a communication "network". They have never had their own schools or teachers who shared their disability. Nor have they had the backing of strong national and regional organizations of hard of hearing adults to serve as their advocates. With the emergence of Self Help for Hard of Hearing People (SHHH) as a strong national organization, perhaps for the first time hard of hearing students will have the advocacy they need.

This having been said, why are we addressing postsecondary educational needs and services of both deaf and hard of hearing students under one cover? First, these are not two dichotomous groups of students. A student who is hard of hearing based on a criterion such as hearing loss, may be deaf based on his or her self-perception and identity. The converse also applies. Second, there remains considerable overlap in the special needs of many deaf and hard of hearing students in the postsecondary educational setting, e.g., notetaking, assistive listening and signaling devices, captioning, and speech and hearing services.

By the same token, it would be a major disservice to both hard of hearing and deaf students if we were to assume that their special needs were identical. One prominent educator and hard of hearing advocate has expressed the following position:

> *The needs of the average college student who is hard of hearing will not be met by enrolling him or her in one of the 145 postsecondary programs specifically designed for students who are "deaf". There is a large conceptual and functional difference between individuals who are hard of hearing, those whose primary communication mode is auditorally-based, and people who are deaf, whose primary mode of communication is visually-based. (Ross, 1990)*

Present college enrollments

The most current demographic information about deaf and hard of hearing students in two and four-year colleges[4] is for the 1992-93 academic year. This information was gathered and reported by the National Center for Educational Statistics (Lewis, Farris, and Greene, 1994) and is based on college and university reports of numbers of students who identified themselves to their institutions as being deaf or hard of hearing, and included a large third group of students for whom information distinguishing between the two was not available.[5]

Number of enrolled deaf and hard of hearing students. An estimated 22,540[6] deaf and hard of hearing students were enrolled in two and four-year colleges in the United States during the 1992-93 academic year. This represents about one in a thousand of all students enrolled in two and four-year colleges.

Of these 22,540 students, 7,020 were identified as deaf and 7,770 as hard of hearing. For the remaining 7,750 students, colleges did not distinguish between the two categories. Assuming these students were distributed similar to the proportion identified in each

[3] See "Diversity among students: Hearing loss" later in this report for an audiometric distinction between deaf and hard of hearing students.

[4] The term "colleges" as used throughout this publication is inclusive of universities.

[5] The following statistics, unless otherwise stated, are from the 1994 NCES publication.

[6] The NCES total enrollment estimate did not include the two national programs, Gallaudet University and NTID in its data, so 2,500 students have been added to this number.

of the two categories, an estimated 10,700 (47.5%) were deaf and 11,840 (52.5%) were hard of hearing.

For deaf students, this estimate is quite close to other estimates based on independent empirical information (Walter, 1992). No independent estimates are available for hard of hearing students in college, but actual numbers are probably much higher than those reported since many of these students are reluctant to identify themselves.

A 1989-90 National Postsecondary Student Aid Study (NPSAS:90) included asking 70,000 students enrolled in two and four-year college programs if they had a hearing impairment. Based on these students' self-reports, NPSAS:90 estimated that more than 250,000 students enrolled in college that year were hearing impaired (U.S. Department of Education, 1993). While on the surface this latter estimate seems to be at major variance with the NCES estimate of around 25,000, much of the discrepancy can probably be explained by the reluctance of many students, particularly among those who are hard of hearing, to identify themselves to their colleges as being hearing impaired. As a consequence, many of these students may be forfeiting valuable services.

Number and kinds of colleges represented. In the 1992-93 academic year, 2,050 (41%) of all two and four-year colleges reported at least one deaf or hard of hearing student among their enrollment, rising each year from 32% in the 1989-90 academic year. Over a four-year period ending with the 1992-93 academic year, 47% of the nation's 5,000 colleges reported one or more deaf or hard of hearing students among their enrollments during at least one of these years. Among the colleges reporting deaf or hard of hearing students in 1992-93, they had a mean number of 9.8 such students.

Among the deaf and hard of hearing students enrolled in colleges other than the two national programs in 1992-93, 62% attended two-year colleges, 88% attended public institutions, 78% attended colleges with total student enrollments of 3,000 or more students, and 93% were undergraduates (the remainder being graduate/professional students). Information was unavailable as to the proportion of full and part-time students.

Since 1973, Gallaudet University and NTID have collaborated in publishing nine editions of *College and Career Programs for Deaf Students*. This publication describes postsecondary programs for deaf students throughout the United States and Canada (Rawlings, Karchmer, DeCaro, & Allen, 1995). A survey conducted for the publication in the summer of 1994 identified a total of 134 two and four-year college programs for deaf students throughout the United States, with a full and part-time enrollment of 4,324 deaf students, exclusive of the two national programs. Forty-five of these programs had a full-time enrollment of 20 or more deaf students, and a median of 37. Twenty-nine of these programs were located in two-year colleges, and the remainder in four-year colleges and universities. These students and their colleges are included in the numbers indicated in the NCES report.

Diversity among students

Stereotypes should be avoided in a discussion of deaf and hard of hearing students. Deaf and hard of hearing students vary in their personalities and social maturity, in their financial resources as students, and in their lifestyles, values, and career aspirations. Like all students, some are academically stronger and more motivated than others. Some are members of ethnic minorities. Some continue their studies at the graduate level. Some have disabilities not associated with hearing loss. Deaf and hard of hearing students have all these individual differences, and innumerable others, in common with normally-hearing students. But they also have distinctive individual differences among themselves, not shared with other students.

Hearing loss. A major source of variability among deaf and hard of hearing students is their wide distribution in degree of hearing loss, which in turn affects their abilities to process sounds, particularly spoken language. Audiometric measures of hearing loss, reported as audiograms (the unit of measurement being decibels), are generally used to describe differences in hearing, and to distinguish between deaf and hard of hearing students.

To illustrate, conversational speech measured a few feet from the speaker is likely to measure around 60 dB, and loud music as much as 110 dB. When audiometric criteria are used, people whose hearing losses extend up to 70 dB, are generally considered to be mildly or moderately hard of hearing, those with hearing losses in the 70-90dB range to be severely hard of hearing, and those with losses of

90dB and beyond, deaf. While these measures correlate with the ability to process spoken language, particularly toward the lower and upper ends of the decibel scale, we should be cautious in depending on audiograms alone to classify students as deaf or hard of hearing, particularly in the 70-90 dB range, or to predetermine special services they are likely to need. Students' self-perceptions and communication strengths are often at variance with external measures of hearing loss. The generic term "hearing impaired" is often used to indicate deaf and hard of hearing people collectively, although many deaf people take issue with being identified in this way because the term itself conflicts with their self-perceptions.

Age at onset. The age at which hearing loss occurs is another important source of individual differences, particularly when viewed in combination with its severity. When present at birth or before "spontaneous" speech recognition and production have a chance to develop, i.e., prelingually, a major hearing loss is likely to impact adversely on the child's development of speech reception and on speech, with residual effects on English language development. For these reasons, most but not all prelingually deaf people adopt sign language in some form as their first or second language.

Communication skills and preferences. For the young deaf child, his/her family, and the professional, issues arise and positions are taken about whether to give primary attention to audition and speech, to sign language in one form or another, or to some combination of these. For college-bound deaf students, their communication skills and preferences are likely to play a part in their choice of a college.

For the college educator, the deaf and the hard of hearing student's communication preferences should be a non-issue. Mindful of their individual differences, and within reasonable limits, the college should provide an environment that accommodates each of their personal and academic communication needs and preferences. On the topic of communication skills, a word should be said about reading and writing skills of deaf students. For students who hear normally, reading and writing are built on an existing repertoire of spoken language. Prelingually deaf children do not have the benefit of this base, and arguments notwithstanding, neither oral/auditory nor sign language approaches have demonstrated that they can fully substitute for normal hearing in this regard (Flexer, Wray, Millin, & Leavitt, 1993). Nor is this likely, at least until we truly recognize and adapt to individual differences on the part of deaf children and their families.

Self identity. The broad acceptance of sign language, together with the 1988 appointment of a deaf president of Gallaudet University, have contributed to a new sense of "deaf pride" and a stronger identification with deafness on the part of many deaf people, particularly among those who have been deaf throughout most or all of their lives. Also, Deaf[7] culture has become recognized as a legitimate concept, with its own rules for membership.

However, it should be pointed out that for numerous reasons many deaf students choose not to identify with Deaf culture or participate in its many root organizations. Their wishes, like those who consider themselves Deaf, must be respected as another aspect of diversity.

Students who have progressive hearing losses, who have sustained relatively recent hearing losses, and/or who are hard of hearing, may have greater problems of identity than students who are prelingually deaf. For example, the fact that a hard of hearing student has excellent speech may lead his/her instructors and hearing peers to think erroneously that no adaptations in communication are warranted. In many instances these students may not acknowledge their difficulty in hearing to others, thereby exacerbating a communication problem.

Members of most ethnic minorities who are also deaf or hard of hearing are severely underrepresented as college students. The common reasons are the same as for other students, but hearing loss places an extra burden on these particular students. They are often asked whether they identify more strongly with people with whom they share their ethnicity or with people who share their hearing loss. A common reply is that they identify with both groups but do not feel fully a part of either. Colleges should be particularly sensitive and responsive to unique concerns about identity among these students.

Prior educational experiences

Types of schools attended. During the 19th century, residential schools for the deaf were

[7] Symbolically, the capitalization of "D" has come into general use in referring to Deaf culture and its members. Among its several identifiers is the use of American Sign Language.

established in virtually every state, almost all these schools including both elementary and secondary-level education. Some were private and subsidized by the state, but most were established and maintained by the various states as public schools. Public day schools were established for commuting deaf students in many large cities, but few deaf students were educated locally in regular schools.

At the turn of the century, 90% of all deaf children were being educated in residential schools for the deaf, but by the early 1960's, this proportion had dropped to 50%. Beginning in the 1970's, a federal law named The Education for All Handicapped Children Act of 1975 (PL 94-142) and since renamed the Individuals with Disabilities Education Act (IDEA), has greatly influenced the educational placement of deaf students in elementary and secondary education, in part because of its attention to "least restrictive environment" (Stuckless & Castle, 1979; Moores & Kluwin, 1986). For many deaf students this has been interpreted to mean "mainstreaming" and enrollment in local public schools.[*]

Each year, states are required to report to the federal government the number of hearing-impaired children and youth who are receiving special educational services with federal assistance. Unfortunately, deaf and hard of hearing students are not reported separately. In the 1992-93 school year, the various states reported almost 61,000 students matching this description. Approximately 78% of these students were enrolled in local schools (in regular classes, resource rooms, and/or separate classes), 10% in separate day schools, and 12% in residential schools (U.S. Department of Education, 1994).

Schildroth and Hotto (1994) reported on a 1992-93 survey of special education programs for hearing-impaired children and youth nationally. That survey identified approximately 44,000 deaf and hard of hearing students. Collectively, 51% of these **hearing-impaired students** (deaf and hard of hearing students combined) were integrated within local schools, 22% were enrolled in residential schools for the deaf, 18% were in special classes within local schools, and 9% were in day schools for the deaf.

Among almost 43,000 students for whom severity of hearing loss was known, 42% had hearing losses of 70 dB or less, and 58% greater than 70 dB. Among those with hearing losses of 70dB or less, 75% were integrated within local schools, 16% in special classes within local schools, 5% in residential schools for the deaf, and 4% in day schools for the deaf. Among those with hearing losses greater than 70dB, 34% were enrolled in residential schools for the deaf, 34% integrated within local schools, 20% in special classes within local schools, and 12% in day schools for the deaf.

Although actual numbers differ, it is quite clear from both studies that considerably more deaf and hard of hearing students today attend local than residential schools, and a large number of these students, including many with prelingual, profound hearing losses, are mainstreamed in regular classes. Nevertheless, we continue to see substantial numbers receiving their elementary and secondary education in residential schools.

Most educators of deaf and hard of hearing students at the elementary and secondary levels agree that a range of educational placement options should remain available to their students. While all these types of educational settings are not equally appropriate for a given deaf or hard of hearing student, all are capable of preparing some such students for college.

Communication in the schools. Schildroth and Hotto (1994) also reported on the primary communication method used in teaching within these various school settings. A combination of sign and speech is most prevalent in teaching within residential schools for deaf students (92%), followed by day schools for deaf students (72%) and special classes within local schools (72%), dropping to 38% in integrated local school settings. Although not indicated in the survey, sign interpreting probably accounts for much of the signing reported in the integrated local school classroom.

Exclusively auditory/oral communication is most prevalent in teaching within integrated local school settings (60%) (where most of the hearing-impaired students are in fact hard of hearing), followed by special classes in local schools (25%), day schools for the deaf (23%), and residential schools for the deaf (4%). Five percent or fewer students are taught exclusively through the use of signs in residential or day schools for deaf students, and virtually none in the local schools.

[*] As an expansion on mainstreaming, there are some today who advocate the full inclusion of **all** deaf children in their local schools, individual differences among these children notwithstanding.

Choice of college

Deaf and hard of hearing students choose a particular college for all the familiar reasons, including its match with the student's academic and career interests, and the student's qualifications for admission. Its location, affordability,[9] size, reputation, degrees offered, and other college variables such as student housing, activities, and services, are also likely to be factors in the student's choice.

The usual influences of family, teachers and school counselors, and friends exist also among deaf and hard of hearing students, magnified perhaps by the added significance of the student's disability in choosing a college.

Access and accommodation. In a 1955 survey of more than 1,800 colleges in the U.S. other than Gallaudet, Bigman identified only 65 deaf students attending 45 different colleges. Similarly, an extensive search by Quigley, Jenne, and Phillips (1968) in 1962 and 1963 identified only 80 deaf and 81 hard of hearing students attending regular colleges as undergraduates. While the investigators considered these numbers as underestimates, the numbers stand in stark contrast to the more than 20,000 deaf and hard of hearing students identified 30 years later (Lewis et al., 1994). This increase reflects changes in access and accommodation over that period.

In 1973, Congress passed the Rehabilitation Act of 1973, replacing the old Vocational Rehabilitation Act. Among the expanded provisions of the new Act was a small but powerful paragraph, Section 504. § 504 was unique in that it required that no program or activity receiving federal financial assistance could discriminate against handicapped persons. § 504 applied to all handicapped persons, not only those who were clients of the vocational rehabilitation system. It was broad and covered not only the traditional vocational training programs and services, but also included any educational institution which was the recipient of federal financial assistance in any form. Thus, handicapped students could no longer be discriminated against in admissions to postsecondary education or with respect to physical access to the campus.

Beyond access, § 504 also addressed the question of **accommodation** once the student was admitted to the college. For example, it placed an obligation on the institution to ensure that no handicapped student be denied the benefits of, excluded from participation in, or otherwise be subjected to discrimination because of the absence of "auxiliary aids" for students with impaired sensory, manual, or speaking skills. Specific reference was made to "interpreters or other effective methods for making orally delivered materials available to students with hearing impairments".

If it were not for Section 504 of the Rehabilitation Act and the more recent enactment of the Americans with Disabilities Act of 1990 (ADA), deaf and hard of hearing students would be much more restricted than they are in their choice of college and be much less assured of quality in their educational experiences once admitted.

Prior learning experiences. Students' feelings about their elementary and secondary school learning experiences are likely to influence in one way or another their choice of one kind of college environment over another. For example, a deaf student accustomed to being taught in a class of deaf students by teachers who use signs, may lean toward a college which offers a similar approach. And conversely, a student experienced in having hearing classmates and classroom amplification or interpreting services, may lean toward a college where he or she is integrated with hearing classmates if his/her prior academic experiences have been generally favorable.

Sociocultural identifications. As discussed earlier in this report, deaf students vary in their identification with other deaf and with hearing people, based largely on the quality of their prior experiences. Given a choice, most students who identify strongly with Deaf culture and sign language would prefer to attend a college where they have an opportunity to interact socially with other deaf students in a language with which they feel most comfortable.

Hard of hearing students are less likely to seek a particular college because of a wish to socialize with other hearing-impaired students. However, the availability of special services associated with hearing-impaired students, e.g., notetaking, is important, and more likely to be in common use within a college which actively recruits hearing-impaired students.[10]

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[9] Also, state vocational rehabilitation agencies vary in their policies for providing financial support to deaf and hard of hearing students enrolling in colleges within and outside their state.

[10] Olmstead (1990) has written an excellent chapter titled , "Getting ready for college" to assist hard of hearing students in choosing a college (Flexer, Wray & Leavitt, 1990).

Special services offered by colleges

The special services available to deaf and hard of hearing students are largely reflected in the titles of the reports in this series. This is not to say that all are available to every deaf and hard of hearing student in college; much depends on the college they choose to attend and the service delivery model[11] it has in place.

The NCES report referred to earlier (Lewis et al., 1994) asked colleges and universities that reported having deaf and/or hard of hearing students any time between 1988 and 1993, to indicate any of the following six support services they had provided during this period. Classroom notetakers were indicated most frequently (75%), followed by sign language interpreters (67%), tutors (65%), assistive listening devices (33%), oral interpreters (20%), and all other support services (29%).[12] Several other services were also mentioned by these institutions.

Services for predominantly deaf students. In 1994, the following services were offered by varying numbers of postsecondary programs for deaf students (Rawlings et al., 1995). It should be emphasized that this list was drawn from programs designed mainly to serve deaf students but inclusive of severely hard of hearing students also. It is not intended to suggest program standards for all colleges serving deaf or hard of hearing students.

- Sign and oral interpreting for classroom and campus-wide events
- Paid and volunteer notetakers
- Professional and peer notetakers
- Real-time captioning in classrooms
- Speech and hearing services
- FM and infrared devices
- Group listening systems in auditoriums and classrooms
- Amplified telephones
- Classroom communication by teachers who sign for themselves
- Sign language training for deaf and hard of hearing students, instructors, and hearing students
- Inservice orientation and training for faculty and staff working with deaf and hard of hearing students
- Visual alarm systems
- TTY's in key on-campus locations
- Personal, vocational development, and placement services by counselors trained to work with deaf and hard of hearing students

[11] Three service delivery models are discussed later in this report.

[12] These and other support services will be described in considerable detail in other reports in this series.

Table 1. Services used and wanted by mainly hard of hearing students

Service	Percentage of students Using	Wishing for	Total
Notetaker	72%	7%	79%
Amplified phones/TTY's	35%	17%	52%
Captioning (video)	12%	35%	47%
Faculty liaison	27%	17%	44%
Social activities*	7%	33%	40%
Support group	12%	25%	37%
Speech therapy	15%	17%	32%
FM system	25%	5%	30%
Hearing aid repair	19%	10%	29%
Interpreter	20%	-	20%
Loaner hearing aids	9%	5%	14%
Tutor	7%	2%	9%
Infrared	2%	5%	7%

** Specifically for hearing-impaired students*

- Social/cultural activities for deaf students
- Supervised housing

Services for hard of hearing students. Olmstead (1990) has developed a sample list of accommodations hard of hearing students should look for in choosing a college. Adapting this list, English (1993) administered a questionnaire to 60 hearing-impaired students referred by college and universities with services to students with disabilities. While the investigator did not distinguish between the responses of hard of hearing and deaf students, 44 of the 60 students were reported to be hard of hearing. English asked the students (a) what services they had used, and (b) what services they would have used if they had been available. Table 1 is an extrapolation from her findings.

We see overlap when we compare the lists of services for predominantly deaf students and for predominantly hard of hearing students. This leads a considerable number of hard of hearing students to enter programs designed essentially for students who are deaf. Based on information from Rawlings & King (1986), notetaking is probably the classroom service most generally shared by the two groups of students.

A direct comparison of deaf and hard of hearing students' use of services. Schroedel, Ashmore, and Sligar-Johnson (1996) studied the use of special services by 319 hearing-impaired students, of whom 179 students (56%) identified themselves as deaf and 140 students (44%) identified themselves as hard of hearing. These students were all enrolled in one of nine two-year colleges and one four-year college, institutional members of a postsecondary education consortium (PEC) of colleges offering an array of special services to hearing-impaired students in the Southeast.

Table 2 indicates the relative use of selected support services by the deaf students and by the hard of hearing students enrolled in these 10 colleges. While not noted in the table, the authors indicated that 79% of the hard of hearing students and 52% of the deaf students used amplification such as hearing aids and/or assistive listening devices.

TABLE 2. PERCENTAGES OF DEAF AND OF HARD OF HEARING STUDENTS USING SELECTED SUPPORT SERVICES IN 10 COLLEGES

Special services	Percentages of students Deaf	Hard of Hearing
Interpreting	98%	51%
Notetaking	72%	61%
Tutoring	64%	52%
Speech and hearing	39%	30%
Sign language instruction	9%	10%
Career counseling	70%	56%
Personal counseling	86%	77%
Job search training	13%	9%
Job placement	41%	13%
Independent living skills	40%	17%
Supervised housing	38%	20%

Perhaps the most notable observation to be made from this table is the fact that a higher percentage of deaf students participated in all these services than did hard of hearing students. It is not clear whether this stems most from what services the two groups of students thought were useful and important to them, a dearth of services designed specifically for hard of hearing students, or staff members urging more deaf students to use the services.

The fact remains that deaf students tend to use more available services than hard of hearing students, leading the investigators to write:

> *Are these hard of hearing students less in need of these services? Are they less aware of them? Or have other unique service needs not yet been identified? ....Several important steps can be taken now. Closer attention needs to be given to aspects of the environment such as lighting and acoustics as well as the availability of communication technology such as auditory loop systems which meet the special needs of hard of hearing students.* (Schroedel et al., 1996)

For most hard of hearing students and many deaf students, amplification in the classroom is of great importance. Another report in this series focuses on assistive listening devices.

Quality of services

Number and kinds of special services available. We can regard the quality of services from several perspectives. One index of quality might be the number and kinds of special services available to deaf and/or hard of hearing students enrolled in a particular institution. For deaf students at least, this would favor postsecondary institutions with large enrollments of deaf students and deep commitments to providing full accommodation for all these students. However, it would be wrong to suggest that such institutions are the most appropriate college settings for all deaf students. For deaf and hard of hearing students, a college of choice should be much more than the sum of its services.

A student perspective. Second, we can judge the quality of services for a given student based on the extent to which a particular combination of services, or perhaps even a single, well-chosen service enables that student to take full advantage of what the institution has to offer. For one student this might be more than satisfactory, and for another, quite unacceptable.

Deaf and hard of hearing students without prior college experience may not be aware of what services they are likely to need. Saur (1992) recommends a developmental approach which "enables students to become aware of their own needs for resources and be able to obtain them as required" (p. 98).

> *[Deaf] individuals will always need a variety of resources in order to contend with the demands of the hearing world. They must learn to know for themselves exactly what their rights are, what resources they require, and how to obtain those resources. Clearly, students do not learn these skills all at once.*

Deaf and hard of hearing students need to learn how to complain effectively if service providers are not living up to their responsibilities or if equipment provided by the college is not working. If a complaint is filed with the Office of Civil Rights, the investigation will include whether the student has used the services appropriately, or complained in a timely manner. For example, if a student does not inform the appropriate college office that the interpreter is not showing up or is regularly late for the student's class, he or she will not be successful in a complaint alleging that the college has failed to provide interpreters.

Standards. Third, there may be specific standards by which to assess particular services and/or the effectiveness of service providers, such as certification and other professional credentials, paid vs. volunteer services, and communication skills. Availability of the service might be considered another standard, e.g., the availability of services such as interpreting and FM systems to students who wish to participate in an out-of-class activity, on-campus resources for hearing aid maintenance. Closely related to availability is dependability of the service provider, e.g., can the interpreter be relied upon to attend every class, and if he/she cannot, is there a backup?

Service delivery models

A student who finds him/herself the only deaf student on a particular campus cannot expect the same array of special services and personnel as might be found on a campus with a special program serving 50 or 60 deaf students, and not nearly the scope of special services as offered by our two national programs with their large enrollments of deaf students and specially trained faculty and staff.[13] Students should be aware of differences in the kinds of services each of these "models" has to offer.[14]

None of these models is inherently better than another. We can judge quality only in the context of the satisfaction and success, however these are assessed, of the deaf or hard of hearing students who avail themselves of its services. The following models are distinguished from each other mostly on the basis of (a) number of deaf and/or hard of hearing students, (b) recruitment, (c) administration and staffing, and (d) services. Most hard of hearing students are likely to choose Models A or B over Model C, while the converse probably holds for most deaf students. However, we should again be reminded of individual differences within each group.

Model A. This model is most common within small colleges with a very few deaf or hard of hearing students seeking services, or perhaps only an

[13] The publication "College and Career Programs for Deaf Students" (Rawlings et al., 1995) is a useful source of information about special services offered by each of more than 100 postsecondary programs for deaf students throughout the country.

[14] The reader is referred to the closing section in this report for a brief discussion about the relevance of ADA and other laws to services in the postsecondary education of deaf and hard of hearing students.

occasional such student. These students are not actively recruited by the college, but probably elect to attend the college for reasons other than the special services offered there, such as attractive majors, location, small class sizes, and/or active advisement and mentoring on the part of its faculty. The task of coordinating services for these students is assigned typically to a professional staff member as the need arises. Generally, this person has no special training and has little or no experience in coordinating services for students who are deaf or hard of hearing. For help in setting up services, he/she is likely to depend mostly on the student to identify his/her special needs and on off-campus resources for advice and the provision of services not available on campus.

Students can choose among academically-oriented support services such as notetakers, sign or oral interpreters, tutors, and assistive listening devices, augmented by full access to all the student services available to all others, including counseling.

Model B. Most medium-sized to large colleges today include an office devoted to coordinating special services for all their students with disabilities who seek assistance, including students who are deaf or hard of hearing. Many of these offices were established to facilitate compliance with the spirit and requirements of ADA.

These offices may be located within a variety of larger units of the college such as a Learning Resources Center, or in Student Personnel under the administration of a Dean of Students. Their coordinators may be responsible also for other areas such as Minority Affairs and International Students.

The professional staff of an office for students with disabilities typically works with students with a wide range of disabilities, and an office on a large campus may be responsible for serving several hundred students. Some staff have training in areas such as rehabilitation counseling or special education, but few have specific training to work with students who are deaf or hard of hearing. Many are members of the Association on Higher Education and Disability (AHEAD), a national organization of special service providers in colleges and universities.

Generally, no special effort is made to recruit deaf or hard of hearing students to these colleges, but an effort is made to alert them to available services when they apply or after they are admitted. Beyond the services available to all students, services for deaf and hard of hearing students are likely to include interpreting, notetaking, tutors as needed, and assistive listening devices for use in the classroom. Some also provide communication and signaling devices such as TTY's (telephone typewriters), flashing alarms and doorbells for the students' dormitory rooms.[15]

Model C. Several references were made earlier in this report to postsecondary programs for deaf students. While deaf students distribute themselves across the three service delivery models described in this report, most enroll in special programs for deaf students, and do so for a number of reasons, including student recruitment, staffing, scope of special services, deaf peers, and ease of communication.

Most postsecondary programs for deaf students are located on the campuses of two-year community colleges where students are most likely to find vocationally oriented curricula, and for which more deaf students are likely to qualify. This is not to suggest that few deaf students qualify for baccalaureate-level studies, as evidenced by the fact that the three largest programs in the U.S. prepare deaf students for bachelor's and graduate degrees.[16]

The professional staff of these programs generally have special training for working with deaf students, both in their area of primary responsibility, and in communicating readily with a range of deaf students. The scope of services available to deaf students is extensive, and this may include teaching classes of deaf students directly.

There is general agreement that a sizable enrollment of deaf students is required to maintain a viable program, but there is little agreement on what that number should be. Exclusive of the two national programs, the mean program enrollment appears to be around 30 deaf students. However, no enrollment number can substitute for a high level of institutional commitment to the program on the part of its host college or university.

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[15] This description of Model B is based in large part on research reported by Robert Menchel (1995) in *Deaf students in regular colleges and universities*.

[16] These being Gallaudet University, NTID at Rochester Institute of Technology, and California State University at Northridge.

Relevance of ADA and other laws*

A few historical notes on § 504 of the Rehabilitation Act of 1973: § 504 marked the first time persons with disabilities were accorded their *civil rights* under federal law. This was extraordinary for several reasons. Up until this time, persons with disabilities had virtually no claim to equal protection under the laws. § 504 was originally intended to be an amendment to the Civil Rights Act of 1964. President Nixon vetoed this attempt and the provision later found a new home in the Rehabilitation Act of 1973, having slipped through largely unnoticed by many members of Congress. Unlike the Education for All Handicapped Children Act (now the I.D.E.A.), § 504 does not provide for in-depth substantive services, but rather for broad, expansive rights to equal opportunity.

Unlike the Civil Rights Act, however, § 504 only applied to programs and services receiving federal financial assistance. Thus, for those entities receiving even indirect federal financial assistance, new strings were now attached. Because it only applied to federally assisted entities, the passage of the Americans with Disabilities Act in 1990 (ADA) became necessary to achieve § 504's purposes. This would not have been the case had § 504 been an amendment to the Civil Rights Act, as had originally been intended.

The question of "Who is a recipient of federal financial assistance?" became the center of a heated battle by a small private college in Pennsylvania which wanted to avoid the provisions imposed by Title IX requiring equality of opportunity in women's athletics. Since Title IX was based on the Civil Rights Act and applied only to recipients of federal financial assistance, like § 504, this case was followed closely by disability service providers and their universities. In its decision in *Grove City College v. Bell*, 465 U.S. 555 (1984), the U.S. Supreme Court held that the college's receipt of tuition paid by students who had received federally guaranteed student loans was sufficient connection to the federal dollar to be considered "federal financial assistance." However, the Court also held that the only part of the college which came under the nondiscrimination provisions was that office which actually received the money, i.e. the financial aid office. Thus, the rest of the institution could avoid the restrictions imposed by the statute.

In 1987, Congress amended several statutes, including § 504 and Title IX so as to codify the "nexus" or connection to the federal dollar in keeping with the Grove City decision, but effectively reversed the Court's determination as to what parts of a secondary university must comply with these laws. In the Civil Rights Restoration Act of 1987, Congress made clear that it defined a recipient of federal financial assistance as the entire institution whose students received federally guaranteed student loans, not merely the financial aid office. Since approximately seven postsecondary institutions in the U.S. are not recipients of federal financial assistance, the effect of this amendment on postsecondary education was pervasive, and remains so today even with the passage of the ADA.

As a statute, the ADA is far more extensive than § 504. This is because many of the regulations and case law decided under § 504 were codified in the ADA itself. The ADA differs from a number of other civil rights statutes in that the statute's purposes and Congress' findings are codified in the statute itself, and not in a preamble or hidden in legislative history. Congress wanted everyone to be quite sure why this law was passed. The ADA is divided into five broad sections or titles. Titles II and III are the most relevant to serving students in postsecondary education and went into effect on January 26, 1992. Title II covers state and local institutions and Title III covers private institutions. As noted, however, since nearly all of the postsecondary institutions are also covered by § 504, there is little practical difference between the Titles. Title I covers employment and would impact students as workers.

It is helpful to think of the ADA as "504 plus." In most cases, compliance with § 504 will insure compliance with the ADA. However, where the ADA provides greater protections, it will preempt § 504. One instance where this is found is the regulations under Title II which provide that the communications preferences of the individual with a disability must be given "primary consideration" by the Title II institution. 28 C.F.R. § 35.160. Naturally, this impacts deaf and hard of hearing students in state and local institutions. The exact boundaries of "primary consideration" are still uncharted however, but it is clear that it does not mean that a deaf or hard of hearing student can get whatever he or she wants if a less expensive and equally effective reasonable accommodation is available.

The ADA and § 504 provide that policies, practices and procedures which have the effect of discriminating against persons with disabilities are prohibited. It is not necessary that an institution intend to discriminate in the traditional sense, i.e. they do not need to demonstrate malice or ill will, but merely that a particular policy, practice or procedure exists, and has the effect of discriminating against students with disabilities.

For the first time, the ADA defined a qualified sign language interpreter as one who is able to interpret effectively, accurately and impartially, both receptively and expressively, using any necessary specialized vocabulary. 28 C.F.R. § 35.105. The ADA does not specify "certified" whether by the Registry of Interpreters for the Deaf (RID) or any other organization. The ADA definition lends itself to a reading where one could be qualified for certain interpreting situations but not be RID-certified or that one could be RID certified, yet not be qualified for certain interpreting situations. An example of this would be medical or legal interpreting or interpreting in a computer lab where the vocabulary used may not be familiar to an interpreter despite being certified.

The Higher Education Act is primarily a federal financial aid statute which provides for greater access to higher education through the availability of low cost loans, such as the guaranteed student loan programs, and funding in the form of grants, such as Pell grants. The criteria regarding "full time status" necessary to qualify for certain types and levels of funding have yet to catch up with the ADA or 504. Many students with disabilities need to take reduced course loads as a reasonable accommodation, yet the Higher Education Act is silent on this. Depending on the financial aid office's willingness to interpret the relevant regulation broadly, many students with disabilities have been denied the availability of federal financial aid.

State statutes against discrimination exist today in nearly every state. In some states, such as California, violations of the ADA give rise to daily damages under the state statute as well. In still other states, such as New York, the statute may apply to smaller entities, such as small businesses of four or more employees, instead of the 15 employees necessary for an employer to be subject to the ADA. Many local governments also have antidiscrimination statutes, such as large cities or counties. In many cases, these statutes also apply to discrimination on the basis of race, gender, nationality, religion, sexual preference, etc. These statutes may provide greater protections than the ADA, but they cannot provide less.

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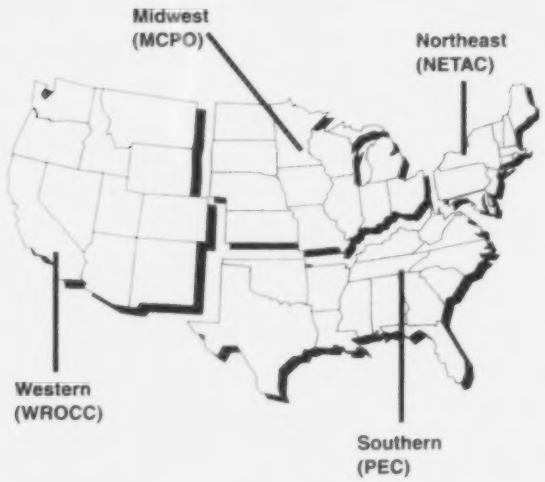
APPENDIX

Network of regional technical assistance centers

In 1996, the U.S. Department of Education, Office of Special Education and Rehabilitative Services, awarded contracts to establish four regional centers nationally for the purpose of providing outreach and technical assistance to the range of postsecondary institutions serving deaf and hard of hearing students.



For more information about these centers and their services, institutions and individuals should contact the center serving their particular region.

Midwest

Midwest Center for Postsecondary Outreach
St. Paul Technical College
235 Marshall
St. Paul, MN 55102
(612) 221-1327 (Voice/TTY)
(612) 221-1416 (Fax)

Northeast

Northeast Technical Assistance Center
National Technical Inst. for the Deaf
Rochester Inst. of Technology
52 Lomb Memorial Drive
Rochester, NY 14623
(716) 475-6433 (Voice/TTY)
(716) 475-7660 (Fax)

Southern

Postsecondary Education Consortium
University of Tennessee
2224 Dunford Hall
Knoxville, TN 37996-4020
(423) 974-8427 (Voice/TTY)
(423) 974-3522 (Fax)

Western

Western Region Outreach Center and Consortia
California State University at Northridge
18111 Nordhoff Street
Northridge, CA 91330-8267
(818) 677-2611 (Voice/TTY)
(818) 677-4899 (Fax)